

CONFIGURATION MANAGEMENT PLAN
for the
VOTKINSK PORTAL MONITORING PROGRAM

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Change 1

TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
Section 1 INTRODUCTION	1
1-1 Purpose	1
1-2 System Description	1
1-3 References	1
1-4 Scope	1
Section 2 REFERENCE DOCUMENTS	2
2-1 Program Documents	2
2-2 Government Documents	2
2-3 Hughes Documents	2
2-4 Order of Precedence	2
Section 3 ORGANIZATION	3
3-1 Project and Functional Organization	3
3-1.1 Project Organization	3
3-1.2 Functional Organization	4
3-2 Functional Tasks	5
Section 4 CONFIGURATION MANAGEMENT PHASING AND MILESTONES . . .	6
Section 5 DATA MANAGEMENT	6
Section 6 CONFIGURATION IDENTIFICATION	6
6-1 Identification of HWCI and CSCI	6
6-1.1 Existing HWCI and CSCI	6
6-1.2 New HWCI and CSCI	7
6-2 Configuration Baseline	7
6-3 Engineering Release	7
6-4 Documentation, Drawing, and Software Libraries	7
6-5 Configuration Identifiers	7
Section 7 INTERFACE MANAGEMENT	7
Section 8 CONFIGURATION CONTROL	8
8-1 General	8
8-2 Change Control Board Functions, Responsibility, and Authority . . .	8
8-3 Engineering Change Proposals	8
8-3.1 ECP Preparation	8
8-3.2 Class I ECP Processing	8
8-3.3 Class II ECP Processing	8
8-3.4 ECP Implementation	8
8-4 Deviations and Waivers Processing	9
8-4.1 Deviations	9
8-4.2 Waivers	9
8-5 Specification Change Notice Processing	9
8-6 Configuration Change Control	9
8-6.1 ECR Processing	9
8-6.2 ECA Processing	9
8-6.3 EO Processing	9
8-7 Document Transfers	9

Section 9	CONFIGURATION STATUS ACCOUNTING	10
9-1	General	10
9-2	Configuration Status Accounting Collection, Recording, and Processing	10
9-3	Configuration Status Accounting Reports Description	10
9-4	Configuration Status Accounting Access Methods	11
Section 10	CONFIGURATION AUDITS.	11
Section 11	SUBCONTRACTOR/VENDOR CONTROL	11
11-1	Supplier Developed Items	11
11-2	Offsite Build-to-Print Items.	11
Section 12	SOFTWARE CONFIGURATION MANAGEMENT.	12
12-1	General	12
12-2	Configuration Control of Software	12
Appendix A	NOTES	13
A-1	Acronyms	13
A-2	Glossary	14

LIST OF FIGURES

<u>Title</u>		<u>Page</u>
Figure 1	Project Organizational Chart	3
Figure 2	Functional Organizational Chart	4
Figure 3	Major CM Functional Tasks	5

LIST OF TABLES

<u>Title</u>	<u>Page</u>
Table 1 Configuration Items.....	6

FOREWORD

The U.S. Government and defense contractors are entering a new era in the generation of documentation to support tasks and processes used to describe how a contractor will perform differing tasks on contracts. The standards and specifications used as guidance in the preparation of these documents are being superseded and cancelled at an astonishing rate. An example of how this affects this configuration management plan is illustrated in the following paragraph.

Data item description DI-E-3108/C-118-1 in the contract for the Votkinsk Portal Monitoring Program (VPMP) refers to MIL-STD-483, Appendix I for instructions on preparing the configuration management plan (CMP); however, paragraph 2.0 of the statement of work lists MIL-STD-973, with changes 1 and 2 as the applicable document for configuration management (CM). Section 6.4 of MIL-STD 973 cancels MIL-STD-483. As an alternative to the preparation instructions in appendix I of MIL-STD-483, table VII in appendix K of MIL-STD-973 lists appendix A of MIL-STD-973 as the replacement. However, paragraph K.3.4 of MIL-STD-973 notes that Appendix A does not require the exact same activities as appendix I. A feature of the CMP outline in MIL-STD-483 that has been carried over into this CMP that is not listed in the CMP outline in MIL-STD-973 is the software-specific configuration management section. Other than this added section, the Hughes Technical Services Company VPMP program management office views the other differences as minor; however, this CMP will attempt to ensure the intent of MIL-STD-483 is carried over into the CM practices.

MIL-STD 973 is currently scheduled for one more update at the end of 1996 and then it will be canceled. Cancellation does not imply that the information contained in a specification is no longer valid; that, combined with MIL-STD-973 being in force when this contract was established will allow the use of MIL-STD-973 throughout the life of the program.

SECTION 1

INTRODUCTION

1-1 PURPOSE

This configuration management plan (CMP) is prepared by the Hughes Technical Services Company (HTSC) Votkinsk Portal Monitoring Program (VPMP) program management office (PMO), hereafter referred to as “PMO”, in accordance with contract OSIA01-97-C-0001 and data item description DI-E-3108/C-118-1. It identifies and defines the configuration management (CM) requirements for the VPMP in support of the Votkinsk Portal Monitoring Facility (VPMF). The VPMF is currently in the operation and support phase of its life cycle.

1-2 SYSTEM DESCRIPTION

The CM requirements established in this CMP cover the operation and support of the VPMF. The VPMF comprises two major systems which are the top level configuration items (CI): the continuous monitoring system (CMS) and the CARGOSCAN imaging system. CMS is used for monitoring vehicles exiting the Votkinsk Machine Building Plant (VMBP) to verify they do not contain treaty limited items (TLI) as specified in the provisions of the Intermediate Nuclear Forces (INF) treaty or items of continuous monitoring (ICM) under the provisions of the Strategic Arms Reduction Treaty (START). CARGOSCAN is used to radiographically image specified containers under the INF treaty to verify they do not contain TLIs. Each of these systems comprises prime mission equipment (PME), software, spares, support equipment (SE), and technical data. Component lower level CI of the PME make up the hardware CIs (HWCI); software designated for CM makes up the computer software CIs (CSCI). CM as defined by this CMP is only applicable to the top level CIs, HWCI, and CSCI and is not applicable to technical documentation and software controlled using simple version control methods.

1-3 REFERENCES

Appendix A of this document contains general notes, acronyms, and a glossary to enhance the understanding of terms and processes referred to in the CMP.

1-4 SCOPE

This CMP will define the major configuration management tasks as they apply to the VPMP, and how CM will be embraced by all engineering and support functions of the VPMP. These major configuration tasks are: establishing that control over the selected CIs is occurring; providing a reference for terms and conditions for use in CM discussions throughout the program; establishing that a configuration status accounting (CSA) system is in place and operable; establishing that configuration control is in place during design, manufacturing, installation, maintenance, and support. A CMP is a living document and will be updated, with the proper approvals, as required by changes in the program or by beneficial changes in the specifications which guide it.

The approach to CM that HTSC will use during the course of this program is to continue to mature and enhance the CM procedures in place during the former phase of the program, to ensure that all support organizations are aware of how CM is integrated into their operating procedures, and to ensure that all support organizations are following the CM procedures as defined by the contract and by this CMP. A key part of this approach is to allow accessibility to CM information by having most CM functions and records generated, modified, tracked, and distributed using an integrated database program, hereafter referred to as "HTSC TechDocs".

The program is in the operation and support phase of the life cycle and the requirements of MIL-STD-973 are tailored accordingly. Other aspects of the program, such as the inherited technical data package (TDP), are also used to determine how MIL-STD-973 is tailored.

SECTION 2

REFERENCE DOCUMENTS

2-1 PROGRAM DOCUMENTS

<u>DOCUMENT</u>	<u>APPLICATION</u>
Contract OSIA01-97-C-0001	All
Data Item Description DI-E-3108/C-118-1	Reference applied to MIL-STD-973, Appendix A

2-2 GOVERNMENT DOCUMENTS

<u>DOCUMENT</u>	<u>APPLICATION</u>
MIL-STD-973, Notice 1, Notice 2	Configuration Management
DOD-STD-100	Drawing Generation

2-3 HUGHES DOCUMENTS

<u>DOCUMENT</u>	<u>APPLICATION</u>
Company Drafting Room Manual	Drawing Generation
Configuration Management Manual	Reference
Engineering Procedures Manual	Reference
HTSC Program Instructions	Reference

2-4 ORDER OF PRECEDENCE

The following documents are binding on the program in the order of precedence given.

Contract	
Program Instructions	
Functional Manuals:	Configuration Manual
	Engineering Practices
	Drafting Room Manual

SECTION 3

ORGANIZATION

3-1 PROJECT AND FUNCTIONAL ORGANIZATION

The HTSC VPMP program manager, hereafter referred to as “program manager”, is responsible for the implementation of the CMP. Administration of the CMP and all configuration management activities is the responsibility of the HTSC VPMP configuration manager, hereafter referred to as “configuration manager”. The configuration manager will work to ensure that all elements of configuration management are accomplished in accordance with the VPMP contract and applicable sections of MIL-STD-973. Systems engineering management, integrated logistics support (ILS) management, site management, and program management will participate in and/or support the administration of the broad spectrum of configuration management activities.

The classical organization of CM is to have a person provided by the “Configuration and Data Management” organization reporting to the program manager. This approach allows the person performing configuration management to have the organizational freedom to get the job done. On smaller programs not co-located with the “Configuration and Data Management” organization and without a full-time configuration position, this is not practical. The following sections show how HTSC is able to overcome this situation while maintaining the integrity of the configuration management.

3-1.1 Project Organization. Figure 1 shows the organizational level groups within the VPMP, at the PMO and at the VPMF, that are the most closely related to the CM process.

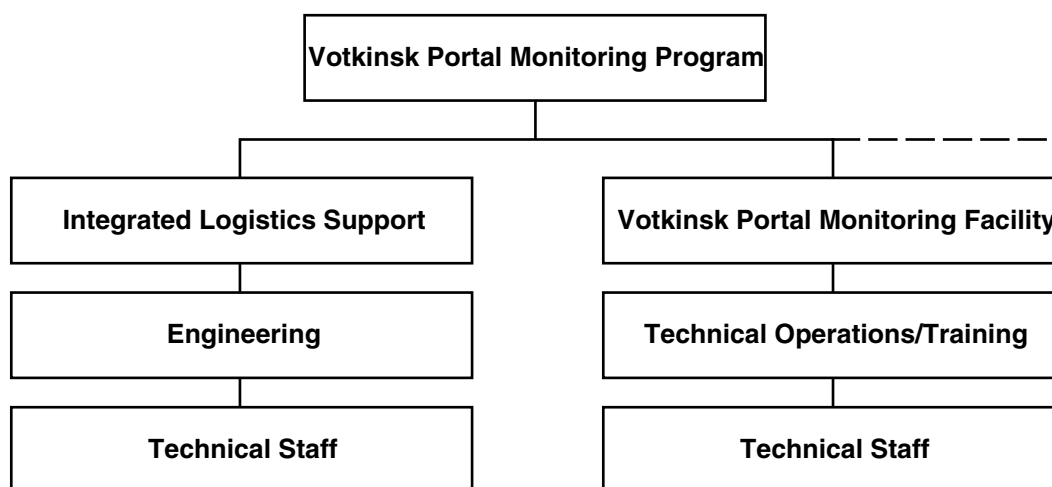


Figure 1. Project Organizational Chart

3-1.2 Functional Organization. The functional responsibility of CM on the VPMP reports directly to the program manager. The position is staffed by a member of the technical staff who normally reports to the engineering manager. The arrangement works because everyone in the chain reports to a manager who understands how CM adds value to their particular area. Any conflicts of interest are handled by the program manager. Figure 2 shows the functional organization of the VPMP at the PMO and at the VPMF. Configuration management tasks at the VPMF are handled by the VPMF configuration administrator and are coordinated by the configuration manager through the VPMF site manager.

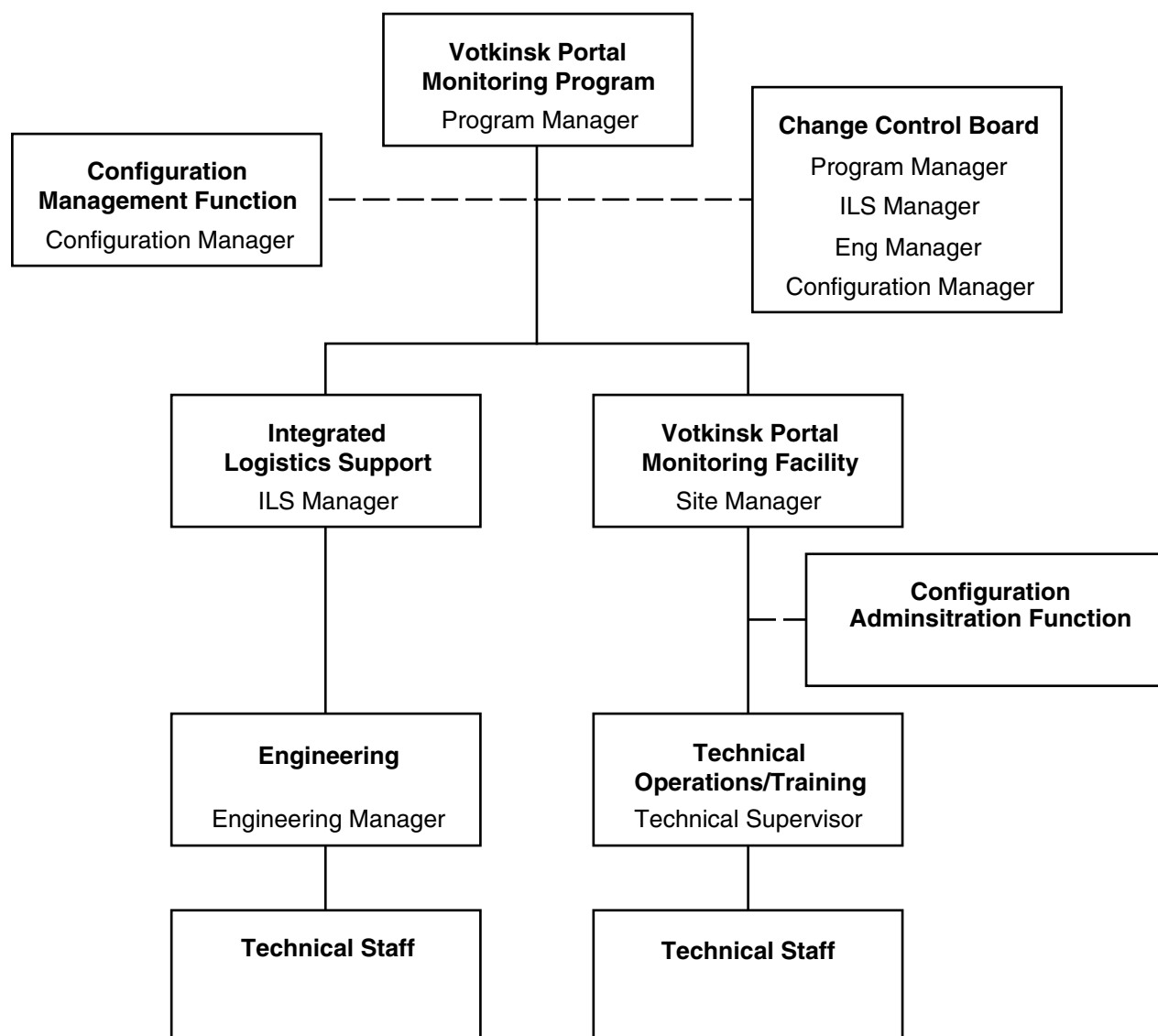


Figure 2. Functional Organizational Chart

3-2 FUNCTIONAL TASKS

Figure 3 shows the major functional CM tasks on the VPMP at the PMO and at the VPMF.

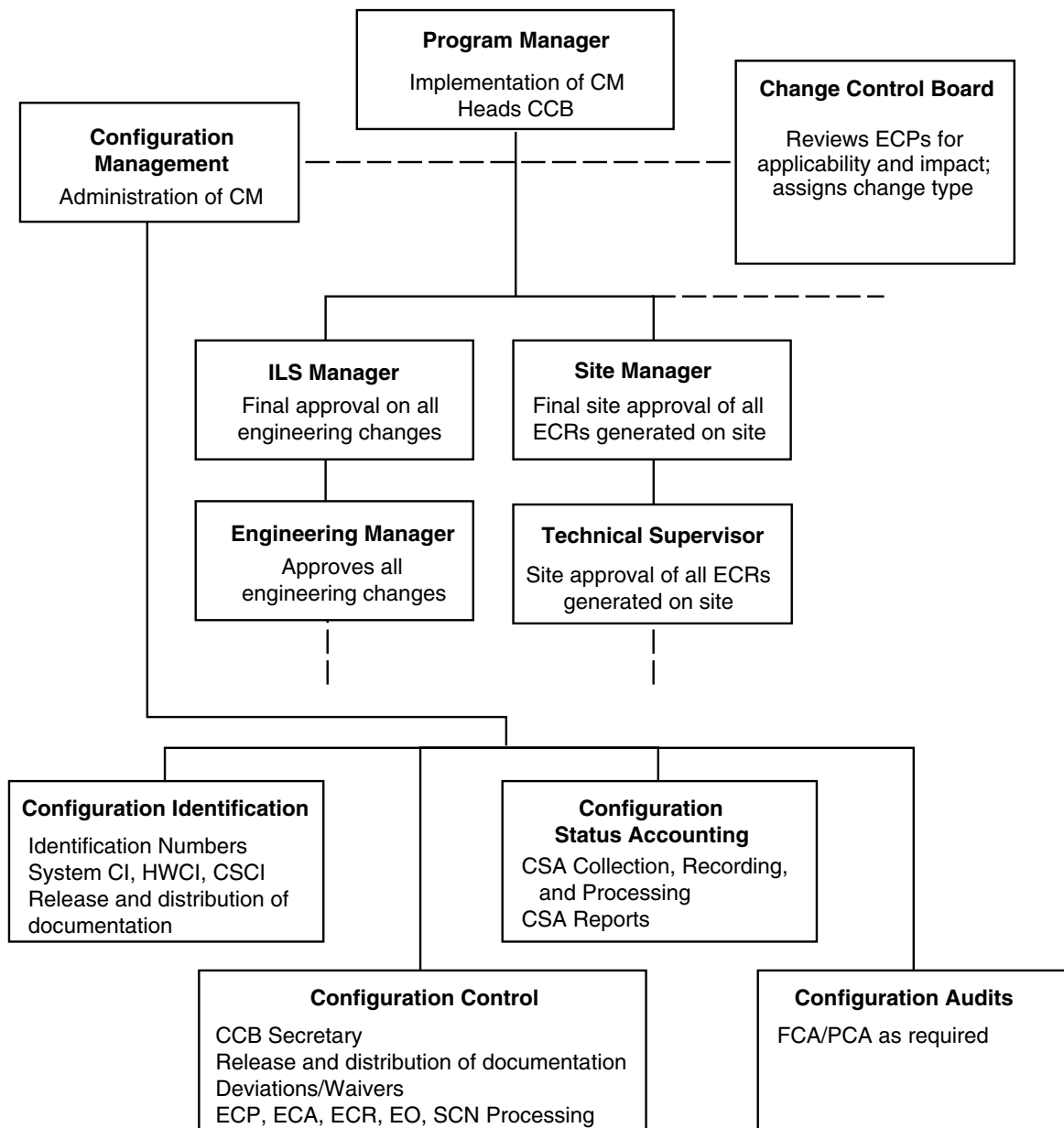


Figure 3. Major CM Functional Tasks

SECTION 4

CONFIGURATION MANAGEMENT PHASING AND MILESTONES

This section has been tailored out.

SECTION 5

DATA MANAGEMENT

This section has been tailored out.

SECTION 6

CONFIGURATION IDENTIFICATION

6-1 IDENTIFICATION OF HWCI AND CSCI

6-1.1 Existing HWCI and CSCI. Table 1 lists the existing top level CIs and first lower level CIs for the VPMP.

Table 1. Configuration Items

Top Level CI
Continuous Monitoring System
Component Lower Level HWCI
Dimensional Measurement Subsystem
Video Subsystem
Traffic Control Subsystem
Data Processing/Operator Subsystem
Communications Subsystem
Power Subsystem
Facilities Subsystem
Component Lower Level CSCI
Road Profiler Preprocessor
Rail Profiler Preprocessor
Portal Exit Block Processor
Rail Exit Block Processor
Central Processor
Operator Interface
Data Review
Top Level CI
CARGOSCAN System
Component Lower Level HWCI
Imaging Subsystem
X-Ray System
Transport System
Safety System
Component Lower Level CSCI
CARGOSCAN Unix Tape
CARGOSCAN Source Code Tape
CARGOSCAN Boot Tape

6-1.2 New HWCI and CSCI. New CIs will be added when designated by the customer for separate configuration management. New CIs established under the VPMP will be delivered with the level of documentation required to define CI specification, configuration, version, installation, operation, maintenance, repair, and sparing requirements. All manuals updated or created will be prepared in accordance with data item description DI-MCCR-80018A.

6-2 CONFIGURATION BASELINE

The product baseline established at the completion of the physical configuration audit conducted during the system installation and testing at the VPMF remains in effect. HTSC will control and maintain the documentation required for the product baseline to a level of detail commensurate with logistics support and procurement requirements.

6-3 ENGINEERING RELEASE

HTSC will maintain documented procedures for the initial release of, and subsequent incorporation of changes into, engineering documentation pertaining to the VPMF HWCI and CSCIs. HTSC will utilize HTSC TechDocs to control and maintain all CI documentation on the VPMP. These procedures will be an integral part of HTSC TechDocs, accessible to the activities within the VPMP PMO and VPMF.

6-4 DOCUMENTATION, DRAWING, AND SOFTWARE LIBRARIES

Master and working hardcopy libraries will be maintained at both the PMO and the VPMF. The master libraries will remain under strict control of the configuration manager and appointed administrators. The configuration manager will utilize HTSC's established system for releasing approved CI documentation to the working libraries. Distributions of such documentation will be coordinated with the HTSC PMO ILS staff, with pertinent OSIA components, and with the VPMF technical staff. All transactions will be documented within HTSC TechDocs, which will include control and visibility of all documentation provided to the Russians.

6-5 CONFIGURATION IDENTIFIERS

HTSC will assign unique identifiers to HWCI and CSCIs and to supporting documentation generated by HTSC. HTSC will use MIL-STD-100, Hughes Drafting Room Manual, MIL-STD-973, and any applicable VPMP program instruction as guidance.

SECTION 7 INTERFACE MANAGEMENT

HTSC will ensure the compatibility and interoperability between any new design or modification and the existing HWCI and CSCIs. This will be accomplished through engineering change control and by performing functional and physical configuration audits

as needed. Refer to Section 10, CONFIGURATION AUDITS for details on functional and physical configuration audits.

SECTION 8

CONFIGURATION CONTROL

8-1 GENERAL

Configuration control under the VPMP will be administered in accordance with HTSC's "Product Baseline Change Control And Revision Process". This is the process by which system engineering and CM review, evaluate, analyze, develop, test, prepare, and implement engineering changes. This function drives the majority of the engineering activity provided by the PMO engineering staff.

8-2 CHANGE CONTROL BOARD FUNCTIONS, RESPONSIBILITY, AND AUTHORITY

The change control board (CCB) is a group of representatives from the participating HTSC activities that review and act on engineering changes. Membership of the CCB includes representatives from the program office, configuration management, the responsible engineering activities, and integrated logistics support activities. The CCB is chaired by the program manager or a designated representative. CCB responsibilities include reviewing and approving/rejecting engineering change analyses (ECA), engineering change requests (ECR), requests for deviations (RFD), request for waivers (RFW), engineering change proposals (ECP), and classifying ECP change status. The CCB activities are coordinated by the configuration manager. CCB meetings are scheduled as necessary to provide timely action on changes submitted for review. For Class I changes, the CCB will defer final approval of the change until the U.S. Government (USG) has approved the ECP.

8-3 ENGINEERING CHANGE PROPOSALS

8-3.1 ECP Preparation. All ECP submittals will be prepared using DD Form 1963 in accordance with MIL-STD-481B.

8-3.2 Class I ECP Processing. Proposed changes to any customer-approved baseline documentation falling within the Class I change criteria of MIL-STD-973 will require CCB and customer approval prior to implementation. Generally, Class I changes revise the terms or specifications of the contract, correct serious operational or safety difficulties, or affect the contract price, schedule, or fee.

8-3.3 Class II ECP Processing. Proposed changes not falling within the Class I change criteria in MIL-STD-973 are Class II changes.

8-3.4 ECP Implementation. Once an ECP is approved by the USG, the responsible engineer will be required to execute the provisions of the ECP, addressing all elements defined in the ECP preparation process.

8-4 DEVIATIONS AND WAIVERS PROCESSING

8-4.1 Deviations. HTSC will not manufacture an item for acceptance by the USG that incorporates a known departure from the requirements for that item unless a RFD has been prepared by HTSC and approved by the USG or authorized activity. DD Form 1694, “Request for Deviation/Waiver” or equivalent, will be used for all RFD and will be prepared in accordance with a VPMP program instruction based on appendix E of MIL-STD-973.

8-4.2 Waivers. HTSC will not offer items to the USG that incorporate a known departure from the requirements for those items unless a RFW has been prepared by HTSC and approved by the USG or authorized activity. DD Form 1694, “Request for Deviation/Waiver” or equivalent, will be used for all RFW and will be prepared in accordance with a VPMP program instruction based on appendix E of MIL-STD-973.

8-5 SPECIFICATION CHANGE NOTICE PROCESSING

For ECPs that revise baselined specifications, HTSC will prepare a specification change notice (SCN) for each specification that will require revision if the ECP is approved, concurrent with the preparation of the ECP. DD Form 1696, “Specification Change Notice” or equivalent, will be used for all SCNs and will be prepared in accordance with a VPMP program instruction based on appendix F of MIL-STD-973.

8-6 CONFIGURATION CHANGE CONTROL

HTSC will implement a change procedure using ECRs, ECAs, and EOs.

8-6.1 ECR Processing. An ECR will be used to present a problem or improvement request and document changes to the engineering of the established baseline. ECRs will be prepared and processed in accordance with the VPMP program instruction governing ECRs.

8-6.2 ECA Processing. When the scope of a proposed change warrants its use, an ECA will be used to summarize the technical effects of a change, identify the problem, and justify the change. It is used to coordinate and ensure consideration of all technical aspects. ECAs will be prepared and processed in accordance with the VPMP program instruction governing ECAs.

8-6.3 EO Processing. EOs will be used to create an engineering drawing or to change, delete, or add information to an engineering drawing, list, or other non-specification document in lieu of making a direct change to the drawing. EOs will be prepared and processed in accordance with the VPMP program instruction governing EOs. After incorporation of the EO into the drawing, the EO becomes part of the drawing revision history.

8-7 DOCUMENT TRANSFERS

Technical documentation is required to be turned over to the Russians if such documentation is used by VPMF personnel for the installation, operation and/or

maintenance of equipment used in the technical zone. Transferring technical documentation utilized in the technical zone to the Russians, for treaty compliance, will be a function of the configuration manager and will be tracked in the CSA system. The configuration manager will provide any documentation requiring turnover to the Russians through the appropriate OSIA representatives located at the VPMP.

SECTION 9

CONFIGURATION STATUS ACCOUNTING

9-1 GENERAL

CSA is the process of maintaining configuration data, including CI identification, revision, current status, and distribution and release information for all documentation identified for the product baseline. HTSC will address the special configuration data requirements for CSA under the VPMP, to include visibility of export/data transfer restrictions and documentation transfer to the Russians.

9-2 CONFIGURATION STATUS ACCOUNTING COLLECTION, RECORDING, AND PROCESSING

The configuration manager will collect CSA task information from documentation as it is developed or processed. This new CSA task information will be added to or used to modify existing CSA task information. At a minimum, the configuration manager will record collected CSA task information on a weekly basis. HTSC TechDocs will process the information into standard forms for use on the VPMP.

9-3 CONFIGURATION STATUS ACCOUNTING REPORTS DESCRIPTION

CSA task information, as tailored by MIL-STD-973, will be available for use on the VPMP. At a minimum, this information will include:

- Specification Revision Level
- Specification Revision History
- Drawing Revision Level
- Drawing Revision History
- Software Version Level
- Software Version History
- Indentured Listing
- Changes in Process
- Approved Changes
- Approved Change Implementation
- Maintenance History
- Retrofit History
- Export/Data Transfer Restrictions
- Documentation Transfer

9-4 CONFIGURATION STATUS ACCOUNTING ACCESS METHODS

HTSC TechDocs will be located on a server and will be accessible only by personnel requiring the information. Change-level access will be controlled, with full-level access available to at least two of the following: ILS manager, engineering manager, and configuration manager.

SECTION 10 CONFIGURATION AUDITS

Functional configuration audits (FCA) and physical configuration audits (PCA) serve to ensure the final result of an engineering change meets the functional and physical specifications defined in the development or revision process; that is, what is delivered is what was planned. An FCA is a quality assurance function and is normally not required for programs in the operation and support phase. A PCA is a CM function and is optional during the operation and support phase. Although the VPMP is in the operation and support phase, occasions may arise where development of new or revisions of existing, HWCI/CSCI may take place.

Planning, performance, and documentation of FCAs and PCAs will follow the general guidance of the configuration audit section of MIL-STD-973.

SECTION 11 SUBCONTRACTOR/VENDOR CONTROL

11-1 SUPPLIER DEVELOPED ITEMS

HTSC is responsible for ensuring that applicable and necessary CM requirements are documented in the purchase order or subcontract to flow down the contractual requirements to the suppliers in accordance with Hughes configuration management procedures manuals. HTSC will attempt to work with previously established and grandfathered subcontractors and vendors to ensure relevant elements of this CMP are followed.

11-2 OFFSITE BUILD-TO-PRINT ITEMS

HTSC is responsible for ensuring that applicable and necessary CM requirements in this CMP are flowed down to offsite build-to-print vendors.

SECTION 12

SOFTWARE CONFIGURATION MANAGEMENT

12-1 GENERAL

Configuration management of software and firmware will be carried out in accordance with the guidelines of section 6-10-102 of the Hughes Configuration Management Manual. The CMOP and VPMP program instructions will apply the guidelines set forth in the configuration management manual as they apply to the VPMP.

12-2 CONFIGURATION CONTROL OF SOFTWARE

HTSC will maintain configuration control of all CMS and CARGOSCAN software. Executable and source code programs are maintained at the PMO with only executable software released to the VPMF. HTSC will maintain a test bed of available CMS and CARGOSCAN equipment at the PMO to conduct training, system analysis, and testing.

System hard drives will be maintained with the current software releases for the CMS to ensure that all functional elements of the test bed remain identical to the actual deployed equipment.

APPENDIX A

NOTES

The notes section contains general notes, acronyms, glossary, and any other information that is not required, but may enhance the understanding of the CMP.

A-1 ACRONYMS

Definitions for many of the following acronyms may be found in the glossary contained in this section.

CCB	Change Control Board
CI	Configuration Item
CM	Configuration Management
CMP	Configuration Management Plan
CMS	Continuous Monitoring System
CSA	Configuration Status Accounting
CSCI	Computer Software Configuration Item
ECA	Engineering Change Analysis
ECP	Engineering Change Proposal
ECR	Engineering Change Request
EO	Engineering Order
FCA	Functional Configuration Audit
HTSC	Hughes Technical Services Company
HWCI	Hardware Configuration Item
ICM	Item of Continuous Monitoring
ILS	Integrated Logistics Support
INF	Intermediate Nuclear Forces
OSIA	On-Site Inspection Agency
PBL	Product Baseline
PCA	Physical Configuration Audit
PME	Prime Mission Equipment
PMO	Program Management Office
RFD	Request for Deviation
RFW	Request for Waiver
SCN	Specification Change Notice
SE	Support Equipment
START	Strategic Arms Reduction Treaty
TDP	Technical Data Package
TLI	Treaty-Limited Item
USG	United States Government
VMBP	Votkinsk Machine Building Plant
VPMF	Votkinsk Portal Monitoring Facility
VPMP	Votkinsk Portal Monitoring Program

A-2 GLOSSARY

Acceptance testing	Formal testing conducted to determine whether or not a system satisfies its acceptance criteria.
Audit	A study to assess compliance with specifications, standards, contractual agreements, and other criteria.
Engineering change proposal	The formal documentation that is prepared for a proposed change affecting.
Engineering change request	The formal documentation that is prepared for a request to change a specification in accordance with the CMP.
Change control board	A board who approves or disapproves of proposed engineering changes to an established baseline.
Computer software configuration item (CSCI)	A software item which is identified for configuration management. (MIL-STD-973)
Configuration	The functional and/or physical characteristics of hardware/software as set forth in technical documentation and achieved in a product (MIL-STD-973)
Configuration control	The systematic evaluation, co-ordination, approval or disapproval and dissemination of proposed changes and implementation of all approved changes in the configuration of any item after formal establishment of its configuration baseline.
Configuration documentation	The documents that define the physical and functional characteristics of a system or equipment designated as CIs. Examples include specifications, source code listings, and engineering drawings.
Configuration elements	Specifications, drawings, source code, etc., that define the configuration of a CSCI.
Configuration identification	The technical documentation for a CI set forth in specifications, drawings, and associated lists.
Configuration item (CI)	An aggregation of hardware or software that satisfies an end use function and is designated by the customer for separate configuration management.

Configuration management (CM)	A discipline applying technical and administrative direction and surveillance to: identify and document the functional and physical characteristics of CIs; audit the CIs to verify conformance to specifications, interface control documents and other contract requirements; control changes to CIs and their related documentation; and record and report information needed to manage CIs effectively, including the status of proposed changes and the implementation status of approved changes.
Configuration management plan	Defines the policies and practices of configuration management on a particular program.
Configuration management operation plan	Defines the contractor's internal implementation of the configuration management plan.
Configuration status accounting	The recording and reporting of information needed to manage configuration effectively.
Data	Recorded information, regardless of medium or characteristics, of any nature, including administrative, managerial, financial, and technical.
Database	A collection of related data stored in one or more computerised files in a manner that can be accessed by users or computer programs via a database management system.
Deviation	A specific written authorization to depart from a particular performance or design requirement of a specification, drawing or other document for a specific number of units or a specific period of time. A deviation differs from an engineering change in that an approved change requires a corresponding revision of the documentation defining the affected item, whereas a deviation does not contemplate revision of the applicable specification or drawing.
Functional Configuration Audit	A quality assurance function comprising a set of tests used to verify the conformance of a product or system to approved functional requirements defined in product and system specifications.

Hardware	Articles made of material, such as aircraft, ships, tools, computers, vehicles, fittings, and their components. Computer software and technical documentation are excluded.
Hardware configuration item (HWCI)	A grouping of hardware that satisfies an end use function and is designated for separate configuration management by the customer.
HTSC TechDocs	Integrated databases hosted on a server that are available across a network to personnel on a need-to-know basis.
Integrated logistics support (ILS)	A disciplined, unified and iterative approach to management and technical activities necessary to: integrate support considerations into system and equipment design; develop support requirements that are related consistently to design, readiness objectives and to each other; acquire required support; and provide required support during the operational phase at minimum cost.
Item	A generic term used to denote any product, including systems, subsystems, assemblies, subassemblies, units, sets, accessories, computer programs, computer software or parts.
Life cycle	A generic term covering all phases of acquisition, operation, and logistics support of an item, beginning with concept definition and continuing through disposal of the item.
Physical Configuration Audit	A configuration management function comprising a comparison of physical characteristics and interfaces of a product or system to defined product and system specifications.
Product baseline	The approved product configuration documentation for CSCI or HWCI functional and physical characteristics and the selected functional and physical characteristics designated for tests necessary for support of the CI.
Software	Computer programs and computer databases, not including documentation.

Software development	A set of activities that results in software products. Software development may include new development, modification, reuse, re-engineering, maintenance, or any other activities that result in software products.
Specification	A document describing the technical requirements and for determining whether the requirements have been met.
Status accounting	The process of documenting the approved status of the system, including a historical record of the development of CIs and all approved changes.
Systems specification	A system level requirements specification.
Tailoring	The tailoring of requirements is the responsibility of the customer; suggested tailoring may be provided by prospective and selected developers.
Technical data package	A collection of product-related engineering data comprised of the engineering drawings and other data related to the design of the item or system.
Verification	The process of determining whether or not the products of a given phase of the system/software life cycle fulfils the requirements established during the preceding phase.
Version	An identified and documented body of software. Modifications to a version of software (resulting in a new version) require configuration management actions by either the supplier, customer or his agent, or both.
Waiver	A written authorization to accept a CI, which during production or after having been submitted for inspection, is found to depart from specified requirements, but nevertheless is considered suitable for use “as is” or after rework by an approved method.